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Analysis of the Management Situation

"DRAFT" Timber Suitability Assessment

Monongahela National Forest

Land and Resource Management Plan - Revision

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Introduction

This analysis of the management situation on the Monongahela National Forest will cover suitability of the land for timber production. A review of current Forest Plan direction and current agency direction will be made and any differences noted. All page number references given in this document are for the 1986 Forest Plan unless otherwise noted.

Within the proclamation and purchase unit boundaries of the Monongahela National Forest are approximately 1.7 million acres. Of these, about 917,000 acres are in federal ownership, and about 888,000 acres are forested. The Monongahela is situated at the intersection of the southern reaches of some tree and plant species, and the northern extent of others. The Forest is mountainous, with a range in elevation from about 900 feet mean sea level (MSL) to a maximum of 4,863 feet MSL, further contributing to the wide diversity in vegetation. The general axis of the Forest is northeast to southwest.

Laws, Policy, Direction

The following are the major laws and regulations which directly or indirectly guide management of the timber resource on National Forest system lands:

- Organic Act (1897)
- Knutson-Vandenburg Act (1930)
- Sustained Yield Forest Management Act (1944)
- Anderson-Mansfield Reforestation and Revegetation Act (1949)
- Multiple-use Sustained Yield Act (1960)
- National Environmental Policy Act (1969)
- Endangered Species Act (1973)
- Forest and Rangeland Renewable Resources Planning Act (1974)
- National Forest Management Act (1976)
- Forest and Rangeland Renewable Resources Planning Act (1978)
- 36 CFR 221

Forest Service policy on timber management, including silvicultural practices, is found in Forest Service Manual (FSM) and Handbook (FSH) 2400. This policy provides additional guidance for the major vegetation management actions likely on National Forest system lands.

While National Forests system lands are to be managed for multiple uses, the removal of timber products, and vegetation management in general, is currently viewed as a tool to create or maintain desired ecological conditions. The Revised Plan will likely have a greater emphasis on contributing commercial timber as a by-product of sustaining ecosystems, providing wildlife habitat, and recovering threatened and endangered species than the 1986 Forest Plan.

Historical Summary

Forest Plan Direction

During the formation of the 1986 Forest Plan, public comments and issues were used to describe management problems, and solutions to these problems were used to help develop the Forest Plan. Vegetation manipulation was Problem 6 in the 1986 Forest Plan. The problem statement included

vegetation manipulation as a tool for producing commercial timber products and for managing wildlife habitat. Major public issues included the amount of timber harvest planned, control of grapevines, and below cost timber sales. Addressing this problem statement, or issue, led to development of standards, guidelines, desired future conditions, allocation of lands to certain management prescriptions, and timber harvest projections.

Suitability of land for timber production

The amount of National Forest system land suitable for timber production was determined as part of Forest Plan development and is documented in Appendix B of the 1986 Forest Plan. No specific standards and guidelines were developed. Suitability to timber production is tied to general direction under FSM 2410 – Timber Regulation.

Current Conditions

Land suitability for timber production

As shown in Appendix B of the 1986 Forest Plan, 723,670 acres of the (then) 851,848-acre Forest are considered tentatively suitable for timber management and production after deducting the following: water, non-forested land, wilderness, other withdrawn land, and sites that could not be managed as regulated forest land without undue resource risk. Since timber harvest is generally precluded (salvage of damaged timber possible) in MP 6.2 areas, an additional 124,491 acres are considered unsuitable. Approximately 599,179 acres remain in the "pool" for active management. Also removed from this pool are ~1,902 acres of manageable land (not MP 5.0, 6.2, or 8.0) occupied by Cheat Mountain salamander and threatened and endangered plants. These 1,902 acres remain assigned to the underlying management prescription, but are not available for timber management. Also considered unavailable for timber management are ~50 acres of Virginia big-eared bat and/or Indiana bat protected habitat (OA 837 and/or OA 838), and ~62,905 acres that the Forest Plan calls for retaining as old growth and permanent openings. The net result of these land allocations was an undefined 331,160-acre timber base floating within ~534,322 acres of the National Forest not planned for a more specific purpose.

Table 1 – Lands suited and available for commercial timber harvest in the 1986 Forest Plan

Acres	Description
723,670	Tentatively suitable for timber harvest
- 124,491	MP 6.2
- 1,902	Cheat Mountain salamander and threatened and endangered plants habitat
- 50	Virginia big-eared bat and Indiana bat
- 62,905	5% for old growth and 5% permanent openings
534,322	Suitable land not currently within or planned for non-timber purpose

Since 1986, an additional ~62,715 acres have been added to the Forest. Except for 18,971 acres not yet given a management prescription and 2,638 acres allocated to MP 6.2, these additional acres have been assigned to management prescriptions available for active timber management (2.0, 3.0, 4.0, and 6.1). Current mapping shows ~69% of the Forest is available for commercial timber management based on management prescriptions (Table 2). This acreage includes the ~1,902 acres of Cheat Mountain salamander and threatened and endangered plant occupancy and ~67,616 acres to be allocated to permanent openings and old growth, which, when subtracted out, leave a pool of

553,249 acres available for commercial timber management from which the 331,160-acre timber base could come. Table 2 does not show all acres assigned a management prescription on the Forest, only those available for commercial harvest based on the goals and objectives of that management prescription.

Table 2 – Acres available for commercial timber management (2003)

Management Prescription	Current Acres (GIS)	Percent of total NF land
2.0	17,301	2%
3.0	180,799	20%
4.0	914	0%
6.1	423,753	46%
Total Available	622,767	68%
Total NF acres (legal description)	916,968	

The acres suitable and available for commercial timber harvest in Table 2 are based on management prescriptions. The Forest's land suitability classification can be used to show more detail about the distribution of these lands. The following table displays the current distribution of acres in the land suitability codes currently in use by the Forest.

Table 3 – Acres by land suitability code (2003)

Land suitability code	Code description	Acres (GIS)
None		7,402
165	Lake/pond 1 to 10 acres	139
170	Lake >10 acres	35
180	Rivers >120 feet wide	17
204	Utility rights of way >120 feet wide	1,589
250	Wildlife opening	4,490
255	Grazing area	7,263
257	Cropland	131
268	Bogs	2,396
290	Roads >120 feet wide	476
295	Administrative sites	763
300	Wilderness	78,499
310	Research natural area	0
320	Wild river corridor	0
500	Suited for timber production	250,461
510	Cable logging only	8,271
600	Tentatively suited for timber production	329,391
670	Silvex exam	0
710	Not able to restock trees in 5 years	8,934
720	Slopes >55%	18,456
730	Unstable soils	209
735	Unique ecosystems	183
740	Other adverse conditions	19,357
801	Threatened and endangered species habitat	5,770
802	Scenic/botanical/or geologic area	174
803	Natural landmark	0
804	Management area 6.2	115,896
805	Management area 8.0	6,015
811	Within National wild river inventory river corridor	10,674
812	Other resource	9,527
813	Old growth stand	10,763
821	Limited legal access	4,797
881	Wilderness study	0
882	Within wild and scenic study river corridor	12,043
Total		914,121

Similar to Appendix B of the 1986 Forest Plan, this analysis uses CFR 219.14 as a guide to determine the total forested land available and suited to timber harvest.

The following table shows current (2003) estimates of tentatively suitable timber land. These estimates have been updated using new technologies and data sources--geographic information system (GIS) as well as the CDS database--that have been developed since the 1986 Plan.

Table 4 – Lands tentatively suited for commercial timber harvest 2003

Acres	Description
916,968	Legal acreage of Monongahela national Forest (Lands Program)
15,869	Land not forested, less than 10% stocking (CDS, LSC 204, 250, 255, 257, and 268)
2,856	Land not forested, water (from CDS, LSC 165, 170, and 180, and GIS STANDs 998)
763	Land not forested, administrative sites (office site, campgrounds, etc. from CDS, LSC 295)
476	Lands not forested, roads or rights of way greater than 120 feet wide (CDS, LSC 290)
38,023	Technology not available to harvest with out damage (CDS, LSC 720, 730, and 740)
8,934	Adequate regeneration cannot be assured within 5 years (CDS, LSC 710)
78,499	Land withdrawn from timber production, Wilderness (CDS, LSC 300)
6,371	Land withdrawn from timber production, Research Natural Areas, Scenic Areas, Botanical Areas, Zoological Areas, Fernow Experimental Forest (CDS, LSC 735, 802, 803, 805)
4,737	Difference between acres with no LSC and STANDs 998
2,847	Difference between legal acreage of Forest and acres in GIS
757,593	Land tentatively suitable for timber production

The acres in Table 4 should not change by alternative during Forest Plan Revision, unless errors in CDS and GIS calculations need to be corrected. Currently, commercial timber harvest is not allowed in MP 6.2 area (about 115,896 acres). Additionally, the amendment to the Forest Plan to protect threatened and endangered species habitat will remove about 112,318 acres from the suitable timber base. The table above also includes as tentatively suitable, about 48,917 acres in the Spruce Knob – Seneca Rocks National Recreation Area.

Land suitability code structure and use

The Washington Office of the Forest Service has a list of land suitability codes suggested for use in the Timber Information Management (TIM) database. The codes and descriptions are very similar to the list currently used on the Forest. One difference is the use of the 600 codes. Currently on the Monongahela, a 600 LSC means the stand has been reviewed on the ground and is suited for commercial timber production, but no decision has been made to remove products or otherwise manage the stand for timber products. When a decision is made, the LSC becomes 500, suited for timber production. These codes are used regardless of the emphasis or reason for the timber harvest; both wildlife habitat creation and timber emphasis areas will receive one code. The WO code scheme defines LSC 500 as suitable - timber emphasis, 600 as suitable – other emphasis, 630 suitable – recreation emphasis, 640 suitable – visual emphasis, 650 suitable – wildlife emphasis, 660 suitable – water emphasis, and 670 is available for regional definition. Adopting this series of codes for land suitability would better reflect our goals for management of the commercial timber base. Areas assigned MP 6.1 could be assigned LSC 650 (unless other factors make a stand unsuited for

timber harvest, such as steep slopes), better describing these lands as suitable for timber production but largely for the management of wildlife habitat rather than commercial timber products. For areas assigned MP 6.2, the LSC could be 630 to show that, while the lands are capable and suited to timber production, the emphasis on these lands is to provide a certain recreation experience.

Future Conditions

As forested stands in MP 2.0, 3.0, 4.0, and 6.1 are re-surveyed through stand exam (also called Silvex), the land suitability class code is reviewed. Depending on changes in stand boundaries, ownership, access, and accepted harvest equipment, LSC may change. Manual direction is for all forested stands considered as part of the timber base to be re-surveyed on a ten-year rotation.

Analytical Conclusions

Based on existing CDS and GIS data, specifically land suitability classification by stand, the total forested National Forest land tentatively suited for commercial timber production is 757,593 acres.

The current list of land suitability codes needs to be redesigned to expand the use of 600 codes to include land suitable for timber harvest with primary purposes other than commercial timber management.